Docket No. 1293.1187

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Jung-kwon HEO

Serial No. 09/960,504 Group Art Unit: 3621

Confirmation No. 7211

Filed: September 24, 2001 Examiner: James A. Reagan

For: APPARATUS AND METHOD FOR TRANSCOPYING DATA

REPLY BRIEF UNDER 37 C.F.R §4 1.41

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Commissioner for Patents
PO Box 1450
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Sir:

This is responsive to the Examiner's Answer mailed January 16, 2007, and setting a due date for a Reply Brief of March 16, 2007. This response is addressed only to those points raised in the Examiner's Answer, and is intended to supplement the original arguments as to the claims as presented in the Appeal Brief filed October 30, 2006. Any claims not specifically addressed below rely upon these original arguments.

I. Real Party in Interest

The real party in interest remains as identified in the Appeal Brief pursuant to 37 C.F.R. §41.37(c)(1)(i).

II. Related Appeals and Interferences

The related appeals and interferences remains as identified in the Appeal Brief pursuant to 37 C.F.R. §41.37(c)(1)(ii).

III. Status of Claims

The status of the claims remains as identified in the Appeal Brief pursuant to 37 C.F.R. §41.37(c)(1)(iii).

IV. Status of Amendments

The status of the amendments remains as identified in the Appeal Brief pursuant to 37 C.F.R. §41.37(c)(1)(iv).

V. Summary of the Claimed Subject Matter

The summary of the claimed subject matter remains as identified in the Appeal Brief pursuant to 37 C.F.R. §41.37(c)(v).

VI. Grounds of Rejection to be Reviewed

The concise statement of each ground of appeal remains as identified in the Appeal Brief pursuant to 37 CFR 41.37(c)(1)(vi) and as indicated in the Examiner's Answer.

VII. Argument

1. Claims 5, 6, and 34-42 are drawn to patentable subject matter

A. There remains insufficient explanation of the basis for the rejection of claims 5, 6, and 34-42 to maintain a prima facie rejection of claims 5, 6, and 34-42 under 35 U.S.C. §101

As noted in the Appeal Brief, in order to reject a claim, there needs to be sufficient evidence and arguments of record in order to meet a prima facie burden as to put the applicant on notice of the reasons for the claim's deficiency. Such evidence is further required in order for meaningful review to be provided under the Administrative Procedures Act, 5 U.S.C. §706. Thus, as noted In re Oetiker, 977 F.2d 1443, 1445; 24 USPQ2d 1443, 1444 (Fed. Cir. 1992), "[t]he *prima facie* case is a procedural tool of patent examination, allocating the burdens of going forward as between examiner and applicant." Moreover, conclusory statements do not satisfy the need for evidence of record needed to meet this prima facie burden. C.f., In re Zurko, 258 F.3d 1379, 1386; 59 USPQ2d 1693, 1697-98 (Fed. Cir. 2001) (unsupported assessment of prior art insufficient to substantiate obviousness rejection since, without concrete evidence, mere conclusions "render the process of appellate review for substantial evidence on the record a meaningless exercise.") As such, in the context of a prima facie rejection under 35 U.S.C. §101 for lack of statutory subject matter, there needs to be in the record evidence or reasoning beyond conclusory statements to substantiate the rejection.

i. The conclusion that the lack of the words "computer" or "computer readable medium" is per se fatal to compliance with 35 U.S.C. §101 does not provide sufficient evidence for a prima facie prima facie rejection of claims 5 and 6 under 35 U.S.C. §101

On page 5 of the Examiner's Answer, the Examiner's only evidence that claims 5 and 6 are not functional descriptive is that claims 5 and 6 only recite a "recordable medium." In contrast, the MPEP requires that the words "computer-readable medium" be recited in order to

meet the threshold of statutory subject matter set forth in 35 U.S.C. §101. Thus, the Examiner is asserting that it is *per se* rule that, unless the words "computer-readable medium" appear in a claim drawn to a stored data structure, the stored data structure is not compliant with 35 U.S.C. §101.

However, it is noted that the per se test outlined by the Examiner is more narrow than the test outlined in applicable case law. Indeed, while Manual of Patent Examining Procedure, 2106.01(8th Ed.)(Aug. 2006) outlines a general test for compliance, there is no required phraseology as this general test merely paraphrases the rule set forth by the Federal Circuit. For instance, Manual of Patent Examining Procedure, 2106.01 relies upon In re Lowry, 32 F.3d 1579, 1583-84; 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) for "discussing patentable weight of data structure limitations in the context of a statutory claim to a data structure stored on a computer readable medium that increases computer efficiency." Manual of Patent Examining Procedure, 2100-17. The Examiner's Answer interprets this paraphrasing as a dictate for a per se rule of compliance. However, the paraphrasing and generalizations set forth in Manual of Patent Examining Procedure, 2106.01 do not reflect the breadth of the claims the Federal Circuit actually at issue in In re Lowry.

As characterized by the Federal Circuit, claim 1 of In re Lowry, 32 F.3d at 1581; 32 USPQ2d at 1033, is drawn to a "memory for storing data for access by an application program being executed on a data processing system." Claim 1 also does not recite the word "computer," the phrase "computer-readable," or the phrase "computer-readable medium." As such, the Federal Circuit's holdings of patentability under 35 U.S.C. §101 are not related to the word "computer" or the phrase "computer readable medium." Instead, the Federal Circuit's hold is more broadly drawn to the proposition that stored data structures which are defined in terms of their interactions while implemented on a system meet the threshold of patentability 35 U.S.C. §101.

Similarly, Manual of Patent Examining Procedure, 2106.01 also paraphrased the scope of the claimed invention found compliant with 35 U.S.C. §101 in In re Warmerdam, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) as being a computer having a specific data structure. However, the claim at issue in In re Warmerdam, claim 5, also does not recite a computer, but instead recites a "machine having a memory which contains data representing a bubble hierarchy," 33 F.3d at 1358; 31 USPQ2d at 1757. The Federal Circuit reviewed this claim as one of ordinary skill in the art and stated that the recited machine was "presumably including a known computer." In re Warmerdam, 33 F.3d at 1361; 31 USPQ2d at 1759. As such, the test

laid out by the Federal Circuit does not rely upon specific words or phrases, but instead on the effect of the data structure defined by functions in the claim.

In summary, while the Examiner's Answer's appears to suggest that compliance with 35 U.S.C. §101 hinges on the specific words or phrases being included in the claims, there is no support for this proposition in the caselaw relied upon by the Examiner or in Manual of Patent Examining Procedure, 2106.01. As such, the mere statement on page 5 of the Examiner's Answer that claims 5 and 6 are not compliant with 35 U.S.C. §101 as these claims "recite only a recordable medium, not a computer-readable medium as dictated by the MPEP" is insufficient evidence to maintain a prima facie case of invalidity under 35 U.S.C. §101 without additional evidence which explains the non-statutory nature of these claims.

ii. The assertion that the claim limitations are intended uses without reciting relationships of the data, without reference to the limitations, remains insufficient explanation of the basis for the rejection of claims 34-42 to maintain a prima facie rejection of claims 34-42 under 35 U.S.C. §101

On page 5 of the Examiner's Answer, the Examiner concludes that claims 34-42 are not compliant with 35 U.S.C. §101 since "a proper review would conclude that each of the limitations does not meet the IEEE definition of data structure and is not functional descriptive material." As further explanation, the Examiner asserts, without reference to the claim limitations, that the claims recite an intended use of what the "data would mean to an apparatus/method, not relationships of data to support data processing functions."

As an initial point of clarification, it is noted that the test outlined by the Examiner's Answer appears to be a distinction in search of a difference. By way of example, the claims in both In re Lowry, 32 F.3d at 1581; 32 USPQ2d at 1033, and In re Warmerdam, 33 F.3d at 1358; 31 USPQ2d at 1757, are also drawn to structures defined by their functions. By definition, claims to functional descriptive material encoded on a medium are going to define the data structures in terms of their functional interaction with an apparatus. For instance, claim 1 of In re Lowry defines a data structure in the context of "an application program being executed on a data processing system" without further explanation. 32 F.3d at 1581; 32 USPQ2d at 1033. There is no explanation in the Examiner's Answer of how, for the purposes of 35 U.S.C. §101, such structures are denied the status of a patentable article of manufacture due to their merely reciting "what the data would mean to an apparatus/method" as opposed to reciting "relationships of data to support data processing functions."

Importantly, even assuming arguendo that the Examiner's test is an accurate reflection of the caselaw, the Examiner's setting forth of a legal test without reference to the limitations of

the rejected claims is insufficient to maintain a prima facie rejection since it sets forth only a legal conclusion. Without more detailed explanation, the record is deficient as to the grounds of rejection and does not provide applicant with an opportunity to respond. Since the Examiner's Answer does not address the recited relationships in the remaining claims 34-42 in view of the test laid out on page 5 of the Answer, the record does not contain an explanation, beyond a conclusory recitation of a legal test divorced from the invention as recited in the claims, sufficient to support a prima facie rejection of claims 34-42 under 35 U.S.C. §101.

B. Claims 5 and 6 recite a data structure that is functional-descriptive and compliant with 35 U.S.C. §101

On page 5 of the Examiner's Answer, the Examiner asserts that claims 5 and 6 recite no data structure within the scope of 35 U.S.C. §101 as there is "no computer, no electrical or magnetic structure, and no data stirred [sic] on a computer readable medium." However, as noted in the Appeal Brief and above in Section VII(1)(A)(i), the test for compliance with 35 U.S.C. §101 is not restricted to situations where a computer is explicitly described so long as the claims define a structural and functional relationship realized by a machine, such as a computer. As such, and as distinguished from compilations of music, functional relationships between the stored data elements which are realized by an apparatus define an invention within the meaning of 35 U.S.C. §101.

Claim 5 is consistent with this understanding of patentable subject matter, and is in a form which the Federal Circuit similarly found compliant with 35 U.S.C. §101 in In re Lowry, 32 F.3d at 1583-84; 32 USPQ2d at 1034-35. Claim 5 of the instant application recites "a content data structure stored on a recordable medium." As such, claim 5 does not claim a data structure in the abstract, but instead a stored data structure. Additionally, the stored content data of this structure comprises "one of original and copied content data," and "data file information unique to said content data so that said content data is distinguishable by a recording and/or reproducing apparatus from other content data." The recited data file information includes "information used by the recording and/or reproducing apparatus to determine the corresponding original content data in the case that the content data is the copied content data." Thus, the data file information defines a specific stored relationship and a function of the recited file information as performed by the recording and/or reproducing apparatus both in distinguishing the stored type of content data, and how to determine corresponding original content data. Such functionality between an apparatus, the stored content data, and the content data structure is fully consistent with patentable subject matter within the meaning of 35 U.S.C. §101 and represents more than mere storage of unrelated data.

Similarly, claim 5 defines a further set of interrelationships with the stored data structure in the form of rights management information. The recited rights management information area indicates "to the recording and/or reproducing apparatus whether said content data is the original content data or the copied content data transcopied from the original content data such that the recording and/or reproducing apparatus distinguishes between the original and copied content data." The recited rights management information area further indicates "to the recording and/or reproducing apparatus rights information related to the recording and/or reproducing apparatus performing data transcopying of said content data, wherein said rights management information for the original content data and the copied content data changes according to transcopying situations." As such and in addition to the functionality provided by the recited data file information, the stored rights management information is utilized by the apparatus to perform still further functionality in regards to rights management governing the apparatus relative to the contents data in the stored contents data structure.

As such, claim 5 recites the prerequisites needed for compliance with 35 U.S.C. §101: a stored data structure storing information defining interrelationships between the stored data and an apparatus which permit the apparatus to perform defined functions. Therefore, more than mere compilations of names and addresses or intended uses, claims 5 and 6 recited stored functional descriptive material for at least reasons set forth above, and remain in compliance with 35 U.S.C. §101.

C. Claims 34-42 recite a computer readable medium including data which is functional descriptive material under 35 U.S.C. §101

On page 6 of the Examiner's Answer, the Examiner asserts that claims 34-42 recite no "positive step," and thus do not "impart any serviceable functionality to the apparatus." However, as similarly set forth in Section VII(1)(B), stored functional descriptive material includes data structures which impart functionality when used in a computer, and are thus compliant with 35 U.S.C. §101 as compared to mere arrangements of data. There is no requirement for a positive step in defining these data structures so long as the interaction of the data elements is defined in the context of the functional use by a computer.

Indeed, neither the claims at issue in In re Lowry, 32 F.3d at 1581; 32 USPQ2d at 1033, nor in In re Warmerdam, 33 F.3d at 1358; 31 USPQ2d at 1757, which are extensively relied upon for the test outlined in the Manual of Patent Examining Procedure, 2106.01, includes such positive steps. For instance, claim 1 of In re Lowry, 32 F.3d at 1581; 32 USPQ2d at 1033, as characterized by the Federal Circuit, recites

> a data structure stored in said memory, said data structure including information resident in a database used by said application program and including: a plurality of attribute data objects stored in said memory, each of said attribute data objects containing different information from said database; a single holder attribute data object for each of said attribute data objects, each of said holder attribute data objects being one of said plurality of attribute data objects, a being-held relationship existing between each attribute data object and its holder attribute data object, and each of said attribute data objects having a being-held relationship with only a single other attribute data object, thereby establishing a hierarchy of said plurality of attribute data objects; a referent attribute data object for at least one of said attribute data objects, said referent attribute data object being nonhierarchically related to a holder attribute data object for the same at least one of said attribute data objects and also being one of said plurality of attribute data objects, attribute data objects for which there exist only holder attribute data objects being called element data objects, and attribute data objects for which there also exist referent attribute data objects being called relation data objects; and an apex data object stored in said memory and having no being-held relationship with any of said attribute data objects, however, at least one of said attribute data objects having a being-held relationship with said apex data object.
> In re Lowry, 32 F.3d at 1581, 32 USPQ2d at 1033.

The Federal Circuit explicitly found that, when presented in this claim, the "data structures are physical entities that provide increased efficiency in computer operation" and are within the contemplated subject matter of 35 U.S.C. §101. In re Lowry, 32 F.3d at 1584; 32 USPQ2d at 1035. Therefore, there is no restriction to defining data structures in terms of positive steps for purposes of 35 U.S.C. §101.

Additionally, while the Examiner's Answer asserts that claims 34-42 are drawn to only what the data would mean to an apparatus such that the claims do not define a relationship of the data to data processing functions, it is noted that claims 34-42 do positively define such relationships. Specifically, claim 34 recites a "computer-readable medium encoded with data that is readable by a computer." The medium includes both "content data," and "identification information that indicates to the computer whether said content data is original content data encoded using a first encoding method, or is copied content data copied from the original content data and encoded using a second encoding method other than the first encoding method such that the computer distinguishes between the original and copied content data." Thus, the recited identification information of claim 34 provides a distinct functional relationship implemented by the computer in regards to distinguishing a type of the content data.

Additionally, claim 34 defines further functional relation in regards to rights information stored in the medium. The recited rights information "indicates to the computer a right of a user to make copies of said content data in the first and second encoding methods." As such, the

rights information provides a functional relationship in regards to continued copying of the stored content data as implemented by the computer.

As such, consistent with the functional relationships defined in terms of their use allowed in In re Lowry, claim 34 also recites the prerequisites needed for compliance with 35 U.S.C. §101: a stored data structure storing information defining interrelationships between the stored data and an apparatus which permit the apparatus to perform defined functions. Therefore, claims 34-42 also define a patentable data structure having a patentable interrelationship beyond mere compilations of data, and instead are stored functional descriptive material in compliance with 35 U.S.C. §101.

V. Conclusion

In view of the law and facts stated herein, the Appellant respectfully submits that the rejected claims remain statutory subject matter under 35 U.S.C. §101 and that the Examiner has failed to rebut the arguments in either the Appeal Brief, the Amendment After Final Rejection filed June 2, 2006, or the Amendment filed December 19, 2005.

The Commissioner is hereby authorized to charge any additional fees required in connection with the filing of the Reply Brief to our Deposit Account No. 50-3333.

Respectfully submitted,

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